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P57047**REMARKS**

This draft response is in preparation for an Interview on April 18, 2007 at 11AM and in response to the Final Office action (Paper No. 20070307) mailed 12 March 2007. Claims 34 through 53 are pending.

In Paper No. 20070307, the Examiner merely repeated the prior art rejection of claims 39-42 and 47-53 of Paper No. 20060908 and rejected these claims under 35 U.S.C. 102 (b) using USP 5,387,314 to Baughman. On Page 4 of Paper No. 20070307, the Examiner commented on Applicant's December 8, 2006 response merely by addressing Applicant's traversal of one of the six limitations Applicant traversed the rejection thereto on December 8, 2006 without addressing any of the other 5. Furthermore, in Paper Nos. 20060908 and 20070307, the Examiner relied on FIGS. 1, 2a, 2b and 3 of USP 5,387,314 to Baughman et al for the rejection of claims 39-42 and 47-53 despite the fact that the structure in FIGS. 1, 2a, 2b and 3 of Baughman misses most of the key features of Applicant's claimed structure. As a result, Applicant would like to discuss with the Examiner and his Primary Examiner Applicant's traversal of the rejections of the other 5 unaddressed limitations and explain how and why they can not be taught by Baughman as well as discuss why the structure of Baughman is so dissimilar to that of Applicant's claimed invention.

Although the Examiner, on Page 4 of Paper No. 20070307 addressed Applicant's traversal regarding the limitation, "each nozzle hole being disposed above a portion of the substrate between a pair of patterned resistive heater elements" of Applicant's claim 39, Applicant submits that the Examiner never commented on Applicant's traversal of the remaining 5 claim limitations discussed.

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in the Remarks of Applicant's December 8, 2006 amendment. Specifically, in the Remarks of Applicant's December 8, 2006 amendment, Applicant traversed the rejection of the claim language:

1) "forming barrier walls over the substrate, the barrier walls separating pairs of patterned resistive heater elements from each other" of Applicant's claim 39;

2) "the resistive heater elements being formed in pairs, wherein barrier walls serve to separate one pair of resistive heating elements from another adjacent pair of resistive heating elements" of Applicant's claim 41;

3) "said electrode layer is deposited so that each pair of resistive heaters are electrically connected in series" of Applicant's claim 42;

4) "the barrier walls being adapted to group together said plurality of resistive heater elements in pairs" in Applicant's claim 47; and

5) "wherein there is a two to one correspondence between the resistive heater elements and the nozzle holes" in Applicant's claim 50, without the Examiner ever commenting on Applicant's traversal to these five limitations. At the Interview on April 18, Applicant would like to explain why each of these five limitations can not be taught by the structure of Baughman. Further, Applicant would also like to explain why the structures of Baughman are so dissimilar to that of Applicant's claimed invention.

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Applicant is hereby repeating Applicant's December 8, 2006 traversal for the above mentioned 5 limitations:

Prior Art Rejections

In Paper Nos. 20060908 and 20070103, the Examiner rejected claims 39-42 and 47-53 under 35 U.S.C. §102 for alleged anticipation by Baughman *et al.* (US 5,387,314). Applicant has the following comments.

1) **Regarding Applicant's claim 39**, Applicant claims, "forming barrier walls over the substrate, the barrier walls separating pairs of patterned resistive heater elements from each other". In Paper Nos. 20060908 and 20070307, the Examiner equates reference numeral 16 of Baughman with Applicant's resistive heater element(s) and reference numeral 17 of Baughman with Applicant's barrier or chamber walls. Then, on Page 4 of Paper No. 20060908, the Examiner states that this limitation is taught by FIGS. 1, 2a, 2b and 3 of Baughman. Applicant disagrees.

Applicant submits that each of FIGS. 1, 2a, 2b and 3 of Baughman clearly shows that the layer 17 separates individual resistive heater elements 16 from each other. Applicant submits that the resistive heater elements in Baughman are not paired off as in Applicant's claimed invention. Applicant submits that in Baughman, there is a one-to-one correspondence between the chambers 15 and the resistive heater elements 16. Therefore, Applicant submits that Baughman can not possibly anticipate Applicant's claim 39.

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2) Regarding Applicant's claim 41, Applicant claims, "the resistive heater elements being formed in pairs, wherein barrier walls serve to separate one pair of resistive heating elements from another adjacent pair of resistive heater elements". On Page 5 of Paper No. 20060908, the Examiner addresses this limitation by saying, "As applied to claim 41, Baughman et al disclose the resistive heater elements being formed in pairs (16, Fig. 2a), wherein barrier walls (15) serve to separate one pair of resistive heating elements from another adjacent pair of resistive heater elements." Applicant disagrees. To begin with, Applicant submits that reference numeral 15 in Baughman is an ejection chamber, not a barrier wall. Furthermore, Applicant submits that Fig. 2a of Baughman shows resistive heater elements 16 being formed individually and not as pairs. Therefore, Applicant submits that Baughman can not possibly teach Applicant's claim 41.

3) Regarding Applicant's claim 42, Applicant claims, "said electrode layer is deposited so that each pair of resistive heaters are electrically connected in series". On Page 5 of Paper No. 20060908, the Examiner addresses this limitation by saying, "As applied to claim 42, Chan et al discloses the electrode layer as read lead (24a, Fig. 2a) is deposited so that each pair of resistive heaters as lead (24a) are electrically connected in series (see sequence Fig. 1, 2a,-2b and Fig. 3)". Applicant disagrees. To begin with, Chan is not used to reject Applicant's claims in Paper No. 20060908. Second, Applicant objects to the Examiner equating reference numeral 24a of Baughman with Applicant's electrodes. Applicant submits that reference numeral 24a of Baughman is a lead-in lobe that allows ink to flow in easier from ink fill slot 18 through ink feed channel 14. Further, element 24a of Baughman is not shown as being connected to any resistive heater element 16. Applicant further submits that Baughman does not illustrate or discuss electrodes. Even further yet,

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Baughman does not teach or illustrate resistive heater elements as being in pairs. And still further, Baughman lacks a teaching of connecting any resistive heater elements in series. Therefore, Applicant submits that Baughman can not possibly teach Applicant's claim 42.

4) Regarding Applicant's claim 47 and 50, Applicant claims, "the barrier walls being adapted to group together said plurality of resistive heater elements in pairs" and 5) "wherein there is a two to one correspondence between the resistive heater elements and the nozzle holes". On Page 5 of Paper No. 20060908, the Examiner states that these limitations are taught by resistive heater elements 16 and nozzle holes 20 of Baughman. Applicant disagrees. Applicant submits that Baughman clearly teaches that there is a one-to-one correspondence between resistive heater elements 16 and nozzle holes 20 and that single resistive heater elements are surrounded by the barrier walls 17. Furthermore, the text of Baughman states at col 3, line 67 through col 4, line 1, "Associated with the resistor 16 is a nozzle, or convergent bore, 20, located near the resistor in a nozzle plate 22." Also, col 4, lines 18-20 of Baughman state, "Each orifice 20 is thus seen to be operatively associated with an resistor 16 for ejecting as quantity of ink ...". Therefore, Applicant submits that Baughman can not possibly teach either of Applicant's claims 47 or 50.

No fee is incurred by the filing of this draft response.

In view of the above, it is submitted that the claims of this application are in condition for allowance, and early issuance thereof is solicited. Should any questions remain unresolved, the

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Examiner is requested to telephone Applicant's attorney.

Respectfully submitted,

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Folio: P57047
Date: 4/10/07
I.D.: REB/ML